

R-NASA/FSR-218

**National Aeronautics and Space Administration**

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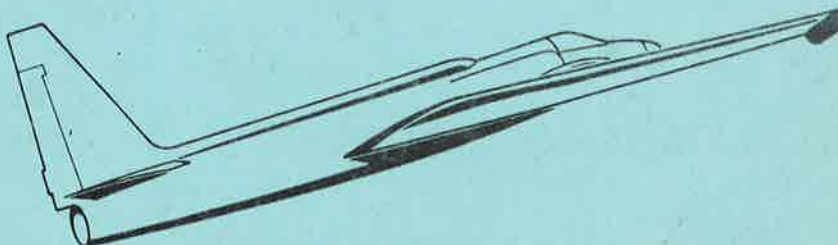
**Earth Resources Aircraft Project**

# **Flight Summary Report**

**Flight No.** 73-003

**Date** 4 January 1973

**FSR- 218**



**Airborne Science Office**

**Ames Research Center, Moffett Field, California**

11 January 1973

# NASA/ARC Earth Resources Aircraft Project

## FLIGHT SUMMARY REPORT

Flight No: 73-003

Date: 4 January 1973

Aircraft No: 4

Julian Date: 004

Sensor Package: Vinten System B/RC-10

Purpose of Flight: ERTS-1 Aircraft Support  
Proposal Nos. 317-044, 535

Area(s) Covered: N.W. California Coast, San Francisco Bay

### SENSOR DATA

Accession No:	00878	00879	00880	00881	00882
Sensor ID No:	011	012	013	014	017
Sensor Type:	Vinten	Vinten	Vinten	Vinten	RC-10
Lens Focal Length:	1-3/4"	1-3/4"	1-3/4"	1-3/4"	6"
Film Type:	Plus X, 2402	Plus X, 2402	Infrared Aerographic, 2424	Aerochrome Infrared, 2443	Aerochrome Infrared, 2443
Spectral Band:	475-575nm	580-680nm	690-760nm	510-900nm	510-900nm
f Stop:	13.5	11	9.5	9.5	8
Shutter Speed:	1/250	1/250	1/250	1/250	1/200
No. of Frames:	116	116	116	116	100
% Overlap	60	60	60	60	60
Quality	Good	Good	Good	Fair	Good
Remarks				Slightly underexposed	

## FLIGHT SUMMARY

73-003

This is an ERTS-1 Aircraft Support flight for Proposal Nos. 317-044 (Colwell) and 535 (Davis) covering the northwestern California coastal area (see Track Map). At the request of Dr. Colwell, additional coverage was obtained during climbout and descent over the East Bay hills area to evaluate frost and freeze damage to vegetation caused by the unusually low temperatures that occurred in early December 1972 (checkpoints A-B and C-D).

Weather conditions for the flight were clear, but some low scattered cumulus and fog occurs in several of the river valleys of the north coast (see Flight Line Data).

Quality of all imagery from this flight is generally good except for the color infrared film of camera 014 which is slightly underexposed. The RC-10 imagery is affected by north slope shadowing due to the low sun angles at these latitudes on this date. Color balance and saturation, however, are excellent.

# FLIGHT LINE DATA

FLIGHT NO. 73-003

VINTEN

Check Points	Frame Numbers	Time (GMT - hr, min, sec)		Altitude, MSL (feet)	Cloud Cover/Remarks
		START	END		
A-B	0001-0004	18 09 38	18 11 15	30,000	Clear-during climbout
C-D	0005-0007	18 15 32	18 16 22	approx.	" " "
E-F	0008-0022	18 58 24	19 09 31	65,000	10-30% sc. cumulus & low fog frs. 8-12, 16-22; rest clear
G-H	0023-0038	19 13 46	19 26 12	"	10-20% sc. cumulus & low fog frs. 25-28, 33-38; rest clear
I-J	0039-0044	19 35 18	19 39 21	"	Clear
J-K	0045-0058	19 40 17	19 50 26	"	"
L-M	0059-0064	19 54 04	19 57 24	"	10% low fog in river valley
M-N	0065-0072	19 58 14	20 04 03	"	Light fog in valleys frs. 70-72; rest clear
N-O	0073-0088	20 04 52	20 17 20	"	Clear
P-Q	0089-0099	20 21 02	20 28 33	"	"
R-S	0100-0110	20 31 22	20 39 24	"	"
A <sub>1</sub> -B <sub>1</sub>	0111-0113	20 29 59]	20 51 09	30,000 approx.	" -during descent
C <sub>1</sub> -D <sub>1</sub>	0114-0116	20 53 23	20 54 22	26,000 approx.	" " "

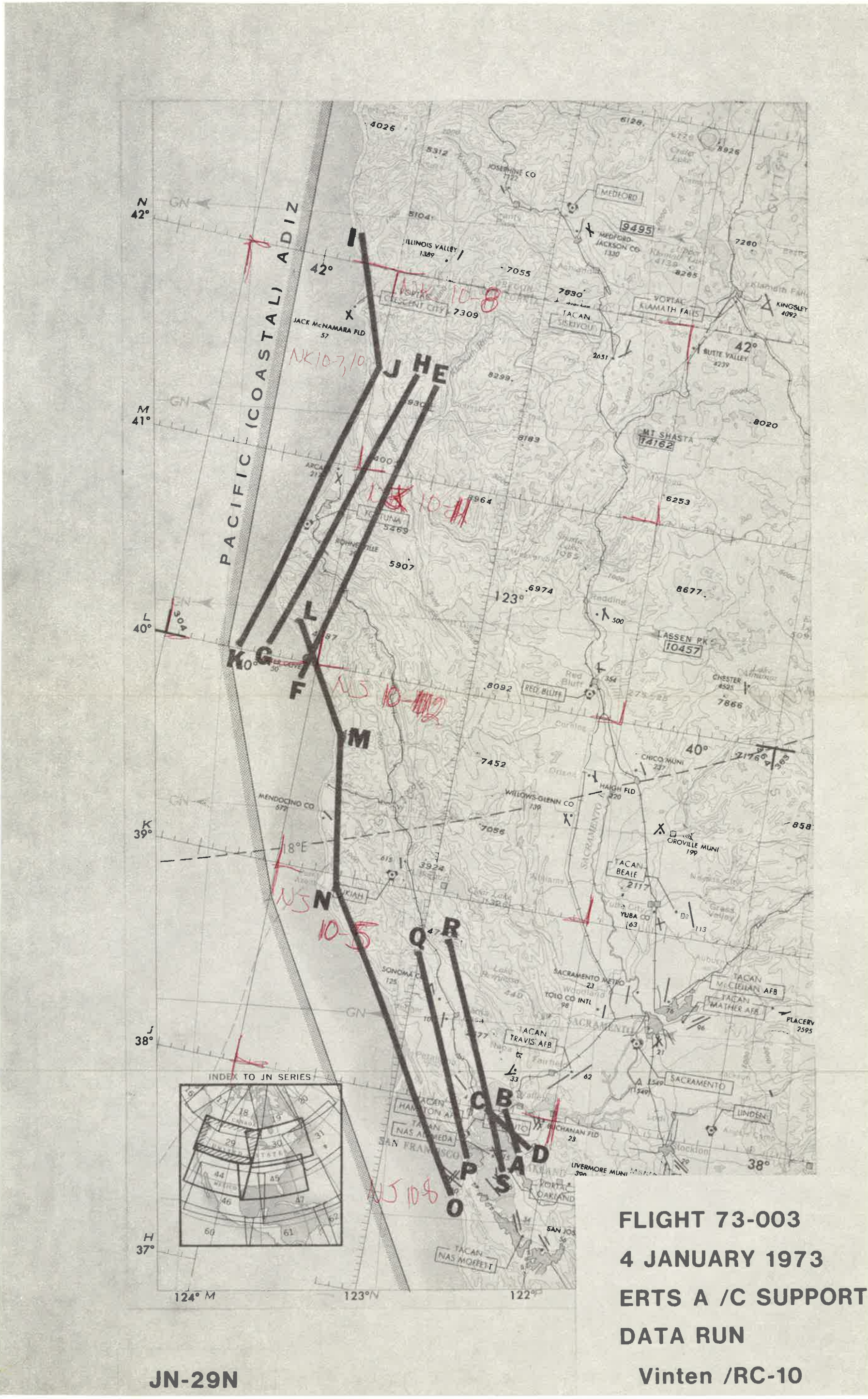
# FLIGHT LINE DATA

FLIGHT NO. 73-003

RC-10

Check Points	Frame Numbers	* Time (GMT— hr, min, sec)		Altitude, MSL (feet)	Cloud Cover/Remarks
		START	END		
A-B	7298-7300	21 07 55	21 08 51	30,000 approx.	Clear - during climbout
C-D	7301-7303	21 14 48	21 15 46	"	" " "
E-F	7304-7316	21 56 41	22 07 48	65,000	10-30% sc. cumulus & low fog frs. 7304-08, 7311-16; rest clear
G-H	7317-7330	22 12 04	22 25 57	"	10-20% sc. cumulus & low fog frs. 7319-21, 7326-30; rest clear
I-J	7331-7336	22 34 35	22 38 37	"	Clear
J-K	7337-7348	22 39 34	22 48 43	"	"
L-M	7349-7352	22 53 24	22 56 22	"	10% low fog in river valley
M-N	7353-7359	22 57 22	23 03 20	"	Light fog in valleys frs. 7357-59; rest clear
N-O	7360-7373	23 03 19	23 16 41	"	Clear
P-Q	7374-7382	23 20 19	23 27 50	"	"
R-S	7383-7392	23 30 40	23 38 40	"	"
A <sub>1</sub> -B <sub>1</sub>	7393-7395	23 48 16	23 50 27	30,000 approx.	" during descent
C <sub>1</sub> -D <sub>1</sub>	7396-7397	23 52 40	23 53 39	26,000 approx.	" " "

\* To obtain actual GMT, subtract 3 hrs. from all times listed.



**FLIGHT 73-003**  
**4 JANUARY 1973**  
**ERTS A /C SUPPORT**  
**DATA RUN**  
**Vinten /RC-10**

**JN-29N**